Title (en)

INTEGRATED CIRCUIT COMPUTING DEVICE COMPRISING DYNAMICALLY CONFIGURABLE GATE ARRAY HAVING A RECONFIGURABLE EXECUTION MEANS.

Title (de)

INTEGRIERTE SCHALTUNGSBERECHNUNGSEINRICHTUNG MIT DYNAMISCHEM KONFIGURIERBAREM GATTERFELD UND WIEDERKONFIGURIERBAREN DURCHFÜHRUNGSEINRICHTUNG.

Title (fr)

DISPOSITIF DE CALCUL A CIRCUIT INTEGRE COMPRENANT DES CIRCUITS PREDIFFUSES CONFIGURABLES DYNAMIQUEMENT A MICROPROCESSEUR ET UN SYSTEME D'EXECUTION D'INSTRUCTIONS RECONFIGURABLE.

Publication

EP 0626084 A4 19950222 (EN)

Application

EP 94903547 A 19931209

Priority

- US 9311964 W 19931209
- US 98923692 A 19921211

Abstract (en)

[origin: WO9414123A1] An integrated circuit computing device (10) is comprised of a dynamically configurable Field Programmable Gate Array (FPGA) (12). This gate array (12) is configured to implement a RISC processor (14) and a Reconfigurable Instruction Execution Unit (16). Since the FPGA (12) can be dynamically reconfigured, the Reconfigurable Instruction Execution Unit (16) can be dynamically changed to implement complex operations in hardware rather than in time-consuming software routines. This feature allows the computing device (10) to operate at speeds that are orders of magnitude greater than traditional RISC or CISC counterparts. In addition, the programmability of the computing device (10) makes it very flexible and hence, ideally suited to handle a large number of very complex and different applications.

IPC 1-7

G06F 15/20

IPC 8 full level

G06F 7/00 (2006.01); **G06F 9/30** (2006.01); **G06F 9/318** (2006.01); **G06F 15/78** (2006.01); **G06F 15/80** (2006.01)

CPC (source: EP US)

G06F 15/7867 (2013.01 - EP US); **G06F 15/8015** (2013.01 - EP US)

Citation (search report)

- [A] WO 9004233 A1 19900419 - MENTOR GRAPHICS CORP [US]
- [A] EP 0497029 A2 19920805 - ANALOGIC CORP [US]
- [PX] ISELI ET AL: "beyond superscalar using FPGAs", PROCEEDINGS OF THE IEEE INTERNATIONAL CONFERENCE ON COMPUTER DESIGN : VLSI IN COMPUTERS AND PROCESSORS, 3 October 1993 (1993-10-03), CAMBRIDGE MASS US, pages 486 - 490, XP010134570, DOI: doi:10.1109/ICCD.1993.393328
- See references of WO 9414123A1

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

WO 9414123 A1 19940623; EP 0626084 A1 19941130; EP 0626084 A4 19950222; JP H07503804 A 19950420; US 5361373 A 19941101

DOCDB simple family (application)

US 9311964 W 19931209; EP 94903547 A 19931209; JP 51439593 A 19931209; US 98923692 A 19921211